

Missouri Department of Natural Resources

## Total Maximum Daily Load Information Sheet

### Tributary to Barker Creek

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#### Waterbody Segment at a Glance:

**County:** Henry  
**Nearby Cities:** Calhoun  
**Length of impairment:** 0.3 miles  
**Pollutants:** pH  
**Source:** Gray Abandoned Mine Lands

**Sulfate proposed as an addition on the 2002 303(d) List**

**TMDL Priority Ranking:** Low



State map showing location of watershed

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#### Description of the Problem

##### Beneficial uses of Tributary to Barker Creek

This stream is not classified so no beneficial uses are assigned to it; however, all waterbodies in Missouri are protected by the general criteria (standards) contained in Missouri's Water Quality Standards, 10 CSR20-7.031(3). See (3)(D) and (G), cited below.

##### Use that is impaired

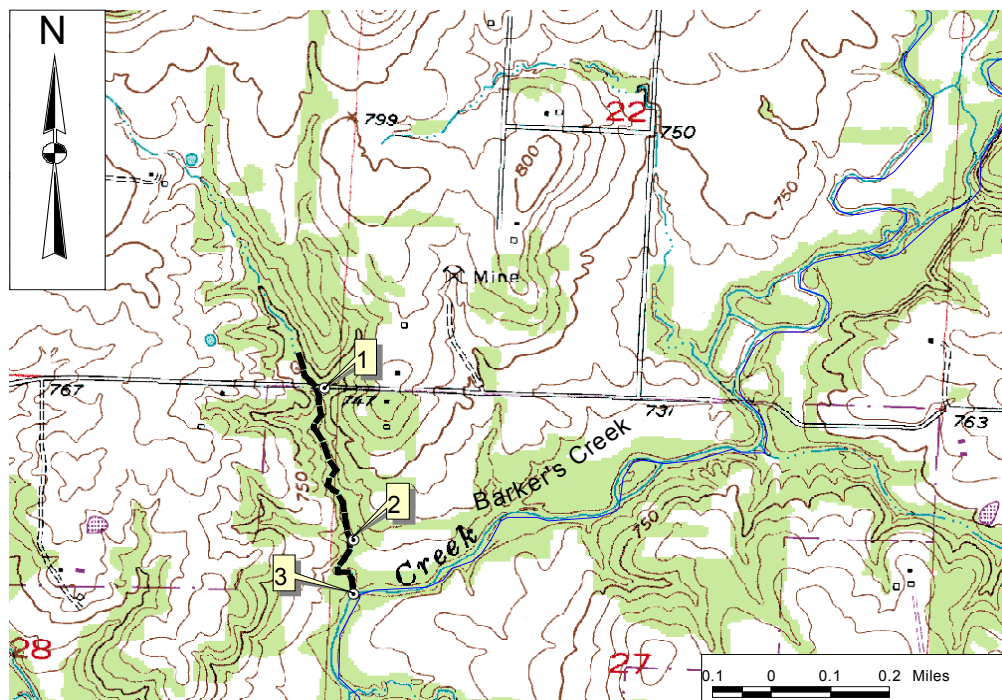
There are no uses assigned to this waterbody (as above).

##### Standards that apply

- The general criteria that apply in this case are:
  - Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life.
  - Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community.

Tributary to Barker Creek (also called Barkers Creek in Missouri Water Quality Standards and 1998 303(d) list) is a tributary to Harry S Truman Reservoir and is heir to the same problems from abandoned underground coal mines that afflict the Tebo Creek system (another tributary to the reservoir). When sulfide minerals in rock are exposed to water and oxygen, they oxidize and form highly acidic (low pH) iron- and sulfate-rich drainage, which is harmful to aquatic life. These minerals make up a large amount of the coal wastes around the Tebo Creek area. Even though reclamation work was done on the Gray Abandoned Mine Land next to this tributary in the 1993-1994, the underground mines still contribute acid mine drainage to the creek through groundwater flow. Since the drainage coming from the mines seep in many locations, they are very hard to remedy. A Total Maximum Daily Load document is presently being written to address the water quality problem.

## Tributary to Barker Creek in Henry County, Missouri, Showing Sampling Sites



--- Impaired Segment

### Site Index

- 1 – Tributary to Barker's Creek near road
- 2 – Tributary to Barker's Creek near mouth
- 3 – Barker's Creek just downstream of confluence with tributary

### Sample analyses in Tributary to Barker's Creek

<u>Site #</u>	<u>Date</u>	<u>pH</u>	<u>Sulfate</u> (mg/L)	<u>Chloride</u> (mg/L)
1	Apr 7, 1999	4.9		
1	Sept 12, 2001	2.0	938	2.5
1	Oct 4, 2001	3.0	1070	2.5
2	June 19, 2001	6.0	114	4.5
2	Aug 14, 2001	2.8	1190	5
3	Aug 16, 2001	5.6	129	2.5
3	Oct 4, 2001	6.7	33	9

Source: Missouri Department of Natural Resources

### For more information call or write:

Missouri Department of Natural Resources, Water Pollution Control Program  
P.O. Box 176, Jefferson City, MO 65102-0176  
1-800-361-4827 or (573) 751-1300 office, (573) 751-9396 fax  
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